

**REMARKS**

**Rejection under 35 U.S.C. 103(a)**

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vinn et al. USP 4,717,888 (Vinn) in view of Shaw USP 2,787,560 (Shaw) and Millman.

Claims 1-5, 8, and 14 are rejected under 35 U.S.C. §103(a) as being unpatentable over Holt page 384 of Electronic Circuits" (Holt) in view of Vinn et al. USP 4,717,888 (Vinn) Millman and Shaw USP 2,787,560 (Shaw)

Claim 12, 13 and 16-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Holt page 384 of electronic Circuits" (Holt) in view of Vinn et al. USP 4,717,888 (Vinn), Millman and Shaw as applied to claims 1-5, 8, and 14 above, and further in view of Campbell et al. USP 5,546,033 (Campbell).

The outstanding Office action has specifically stated that "Vinn is silent on the frequency range of operation and the use of thickness of the thin film resistor being smaller than three times its skin depth at the operating frequency range."

The Applicant agrees with this Office assessed shortcoming of Vinn. To supplement Vinn, the Office asserted Shaw and stated that "Shaw teaches that in order for metal film resistors to be fully useful for microwave work it is necessary that the film be a relatively small fraction of the skin effect depth for such wavelengths. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to set the thickness of the thin film

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resistor to be less than three times its skin depth at the microwave frequency so as to have the resistor be fully useful for microwave work as taught by Shaw."

The Applicant certainly acknowledges that Shaw teaches a film to be of a relatively small fraction of the skin effect depth. However, it is uncertain what is the meaning of a relatively small fraction. Should the Office interprets this to mean from infinitesimally small to 99.999% of the skin depth, it would be an unreasonable interpretation, because any person of ordinary skill in the art knows that there is always a lower limit of thinness and an upper limit of thinness beyond which would render an element unworkable. If infinitesimally small to 99.999% of the skin depth is not interpreted by the Office, then based on the teaching of Shaw, how small did the Office interpret the relatively small fraction to be? The Office certainly did not point to any portion of Shaw to establish the proper meaning of a relatively small fraction.

The answer perhaps lies in the position the Office took without reservation by stating that "it would be obvious to one of ordinary skill in the art at the time the invention was made to set the thickness of the thin film resistor to be less than three times its skin depth at the microwave frequency so as to have the resistor be fully useful for microwave work as taught by Shaw."

However, Shaw neither taught specifically less than three time its skin depth nor provided any parameters as to the meaning of a relatively small fraction which could mean infinitesimally small to 99.999% of the skin depth. Therefore, the teaching pertaining to a relatively small fraction is simply vague and indefinite.

From all objective evidences, only the instant application discloses or teaches specifically "a thickness smaller than three times its skin depth at the frequency", for example on

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page 21 between lines 7 and 9 of the written specification. It is respectfully submitted that in the absence of any specific disclosure or teaching in the asserted prior art of small than three times its skin depth, the Office is engaged in hindsight reconstruction to choose and pick among isolated disclosure to deprecate the claimed invention. It is well settled that:

"One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

In this instance, the Office is in fact picking and choosing from the Applicant's own disclosure to reject the claimed invention.

In fact, the Office asserted nothing more than common knowledge as a basis to reject the claimed invention. Regarding a case in which the Board of Appeals and Interferences affirmed a rejection based on common knowledge, on appeal to the U.S. Court of Appeals of the Federal Circuit, the Federal Circuit has stated in relevant part that:

"The determination of patentability on the ground of unobviousness is ultimately one of judgment. In furtherance of the judgmental process, the patent examination procedure serves both to find, and to place on the official record, that which has been considered with respect to patentability. The patent examiner and the Board are deemed to have experience in the field of the invention; however, this experience, insofar as applied to the determination of patentability, must be applied from the viewpoint of "the person having ordinary skill in the art to which said subject matter pertains," the words of section 103. In finding the relevant facts, in assessing the significance of the prior art, and in making the ultimate determination of the issue of obviousness, the examiner and the Board are presumed to act from this viewpoint. Thus when they rely on what they assert to be general knowledge to negate patentability, that knowledge must be articulated and placed on the record. The failure to do so is not consistent with either effective administrative procedure or effective judicial review. The board cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which it relies." *In re Lee*, 61 USPQ2d 1430, 1435 (Fed. Cir. 2002).

Therefore, according to the Federal Circuit, when general knowledge is asserted to reject a claimed invention, the specific “knowledge **must be** articulated and placed on the record. The failure to do as is **not consistent** with either effective administrative procedure or effective judicial review. The board **cannot** rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but **must** set forth the rationale on which it relies. Given that the board cannot rely upon conclusory statements, the Examining Corp by inference also cannot rely upon conclusory statements. By asserting common knowledge yet without specifically articulate what that knowledge is, the Office is indeed relying upon impermissible conclusory statements.

In addition, independent claim 1 of the present invention has also recited “a thickness smaller than three times its skin depth at a predetermined frequency in the range of 1MHz to 10Ghz. In the final rejection, the Office only addressed the 1MHz without addressing the remaining range thereafter up to 10GHz. Should the Office continue to reject the claimed invention, a indication of where the range is disclosed or taught in the prior art is respectfully requested. Should the Office continue to ignore part of the recited range, a justification citing legal authority as to why the Office believe the rejection is proper is respectfully requested.

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**CONCLUSION**

The applicants respectfully submit that no new matter has been added. It is believed that this Amendment is fully responsive to the Office Action dated August 7, 2003.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 50-2866.

Respectfully submitted,

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